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QC

Quality Control

QC1-Inspect dimensions to dimension sheet

3-Remove sand and plugs

inside of Cuff(Do not engrave on outside of tube)

FOLIO REV: DWG REV:

0.00

4-Scribe part # and batch # using vibrating stylus as per Dwg D206-667-145

Page 2

Insp.

130

Memo

0.00

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Part No	:	PAR #:	Fault Ca	tegory:	NC	R: Yes N	lo <b>DQ</b>	A:	Date: _	
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### Work Order ID 81524

\*81524\*

Page 3

March-15-12 8:44:19 AM D407-667-105TRN Item ID: Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Crosstube Turning Detail **Start Date:** 15/03/2012 Start Qty: 1.00 **Cust Item ID: Required Date:** 29/03/2012 Req'd Qty: 1.00 **Customer:** Reference: Run Process Plan: Date: Tooling: Approvals: Date: Date: SPC (Y/N): Date: Sequence ID/ Tool # Plan Reject Operation Tool ID Reject Set Up/ Accept Insp. Work Center ID Description Code Qty Qty Number Stamp **Run Hours** QC8- Inspect parts - second check 140 0.00 \*140\* 0.00 Memo Quality Control 145 0.00 \*145\* Crosstubes 0.00 Memo Crosstubes GRIND ONLY TRANSITION LINES SMOOTH LONGITUDE WAY. 150 Crosstubes Chemical Conversion 0.00 \*150\* HandFXtube 0.00 Memo Hand Finishing Crosstubes

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Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A:	Date:	
	R	esolution:	Dispositio	n:	QA: N/C CI	osed:		Date: _	<del> </del>
NCR:		,	WORK ORD	ER NON-CONFORMAI	NCE (NCR	3)			
		Description of NC	Corrective Action Section		Verific	ation	Approval	Approval	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C		Chief Eng	QC Inspector
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Work Ore	 
Item ID:	 67-105TRN
Revision ID:	

Work Ord		524		*815	524*		Page 4
Item ID: Revision ID:	D407-667-10	05TRN		Accept	*N900040100*	Setup Start	*NS1*
Item Name:	Crosstube Tur	ning Detail				Stop	*NS2*
Start Date:	15/03/2012	Start Qty: 1.00	*1*		Cust Item ID:		
Required Date: Reference:	29/03/2012	<b>Req'd Qty:</b> 1.00	*1*		Customer:		
Approvals:	Drocess Pla	ın:	Date:	Tooling:	Date:	Run Start	*NR1*
Approvais.				_	Date:	Stop	*NR2*
Sequence ID/ Work Center II	<b>D</b>	Operation Description		Set Up/ Run Hours	Tool ID Tool # Plan Ad Code Q		leject Insp. lumber Stamp
160		QC7-Inspect Chemical C	Conversion Coat	0.00	/ \	(N)	4-13
*160* QC Quality Control		Memo		0.00	7	J 12-	
170 *17 <b>0</b> *		Packaging		0.00		1 6	
Packaging Packaging		<b>Memo</b> Identify and	stock in Kanban rackL	0.00 		· · · · · · · · · · · · · · · · · · ·	MM.
180		QC21- Final Inspection -	Work Order Release	0.00		<b>a</b> )	1764) 1 - 10
*1 R O * QC Quality Control		Memo		0.00		1214	1234

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**Picklist Print** 

March-15-12 8:44:23 AM

Work Order ID: 81524

\*81524\*

Parent Item: D407-667-105TRN \*D407-667-105TRN\*

Parent Item Name: Crosstube Turning Detail

**Start Date: 15/03/2012** 

**Required Date: 29/03/2012** 

Page 1

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:a08.02.28 new issueEC

IPP Rev B 08.04.02 Removed polish EC verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6010-115		Manufactured	No			110	Each	17.0000	1	1			<del>-</del> .
*D6010_11	5*								**				

Crosstube Material

Location Loc Qty Loc Code LG 17 17

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Part No	•	PAR #:	Fault Categ	jory:	NCF	R: Yes	No <b>DQ</b>	A:	Date:	
	R	esolution:	Disposition	i:	QA:	N/C CId	sed:		Date: _	
NCR:		***	WORK ORDE	R NON-CONFORM	ANCE	(NCR	)			
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DART AEROSPACE LTD	Work Order:	81524
Description: Crosstube Assembly	Part Number:	D407-667-145
Inspection Dwg: D407-667-145 Rev: C		Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST

Ir	spection Sheet	Tolerance	Actual			Method of	_
Dra	awing Dimension	loierance	Dimension	Accept	Reject	Inspection	Comments
	2.240	+0.005/-0.000	2.245	V		vern	CN(-08
	1.865	+0.005/-0.000	1.870	V /			
	1.878	+0.005/-0.000	1883	<b>V</b>			
	1.970	+0.005/-0.000	1.971	V			
1	2.030	+0.005/-0.000	2.031	<b>\( \)</b>			
4	2.165	+0.005/-0.000	2170		71.	4	
SIDE							
	0.125	+/-0.010	,125	/		Veru	CWC-08
İ	R0.063	+/-0.010	-063			R6	
	R0.500	+/-0.010	-500			1/	
	R0.063	+/-0.010	-663			( (	
	4.438	+/-0.030	4.438			vern	CN1-08
	2.240	+0.005/-0.000	2.243			Vern	CNC-08
	1.865	+0.005/-0.000	1.869				
	1.878	+0.005/-0.000	1.881				
	1.970	+0.005/-0.000	1.970				
	2.030	+0.005/-0.000	7.030				
	2.165	+0.005/-0.000	2.170			J	
8							
SIDE			, , ,				
တ	0.125	+/-0.010	1125			vern	CNC-08
	R0.063	+/-0.010	-003			R. C	
	R0.500	+/-0.010	.506				
	R0.063	+/-0.010	-063			10	
	4.438	+/-0.030	4.440			NEVN	CWC-08
	113.20	+/-0.020	113.20			tape	gngm.1-02
						7	

Data: 12/4/a:					
Date: 17 /1//2: Date: 10 11 11	Measured by:	Audited by:		Preliminary Approval:	
Date:   Date:   Date:	Date: 12/4/10	Date:	12-4-12	Date:	

Rev	Date	Change	Revised by	Approved
_ A	04.04.21	New Issue (P/O D407-667-105)	KJ/RF	Approved
В	06.03.09	Dwg Rev updated	KJ/JLM	
С	09.06.11	Dwg Rev updated	K.I	7/1
D	11.06.21	Tolerance revised for 4.438 dimension	KJ (A)	Chill
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N/O:		· · · · · · · · · · · · · · · · · · ·	W	ORK ORDER CHANGI	ES				
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Part No:		PAR #:	Fault Cat	Fault Category: NCR: Yes No DQA:					
Resolution:								Date:	
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DATE	STEP Description of NC			Corrective Action Section		Verific		Approval	Approval
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ULTRA SONIC MEASURMENTS								
Side	LOCATION on tube	,160	, 2.19	R3	R			
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Α		1000	,233					
В		, 169	.720					
		·lloCo	.229					
		.171	Part number	81524				
			Batch number	467-667-1	45			
			Measured By	000301				

Item	Qty -145	Part Number	Description
1	Х	D407-667-145	CROSSTUBE ASSEMBLY (407 HIGH FWD)
2	1	D6010-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2891-1	SUPPORT
6	4	D3595-063-395	RUBBER CUSHION
7	4	MS21920-20	CLAMP (OR MS21920-21)
8	14	MS20601AD4W10	RIVET (OR NAS9302B-4-10)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299- 947-100, TYPE II, CLASS 2 ADHESIVE)

### **GENERAL NOTES:**

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В

1) MATERIAL: MANUFACTURED FROM D6010-115

FINISHED LENGTH = 113.20±0.020

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2 PAINT OUTSIDE PER DART QSI 005 4.2

- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: SCRIBE DART PART NUMBER "D407-667-145" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 17.8 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- RUN CUTTER OFF PART WHERE INDICATED, BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 6 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0,005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP COPY RETURN TO ENGINEERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER MLJ

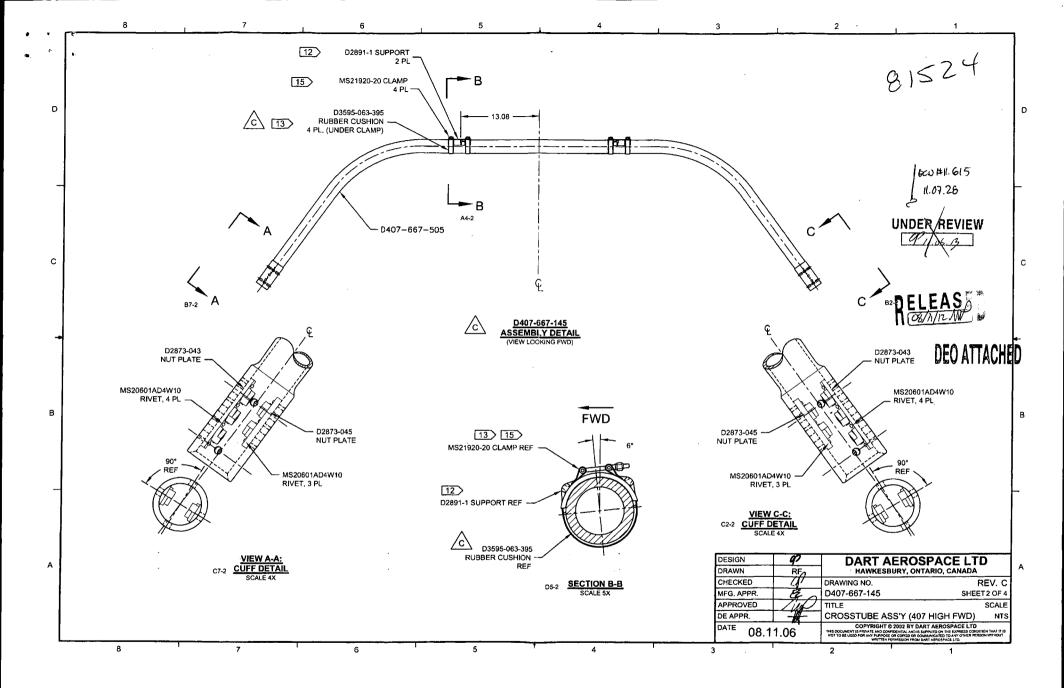
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EW#11-615

С	REORG TO CUP D3595-0 REMOV D2-3); F	SANIZED VIEW RRENT STAND 063-395 WAS D /ED REF. 7 AD RELOCATED FI ) TURNING DE	OTES/PART LIST (ZN D7-1); S AND REFORMATTED DRAWING ARDS. 12856-400-694 (ZN D6-2 & A5-2); D TOLERANCES (ZN G6-3, C4-3, LAG #6 (ZN A8-3) PER NCR 210; TAIL & UPDATED TOLERANCE TO	RF	08.11.06			
В		DLES AND NU HT/AA SKUDT	T PLATES FOR COMPATABILITY UBES	PH	05.07.26			
Α	NEW ISSUE				02.05.08			
REV.			DESCRIPTION	BY	DATE			
DESIGN		P	DART AEROSP	ACE	LTD			
DRAWN		RF <sub>2</sub>	HAWKESBURY, ONTA	RIO, CANA	ADA			
CHECK	D	U	DRAWING NO.	REV.				
MFG. APPR.			D407-667-145	-145 SHEET 1 OF 4				
APPROVED ///			TITLE SCALE					
DE APPR.			CROSSTUBE ASS'Y (407 HIGH FWD) NTS					
DATE 08.11.06			COPYRIGHT © 2002 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND COMPUSETION, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OF DOCUMEN CATE TO ANY OTHER PERSON WITHOUT					

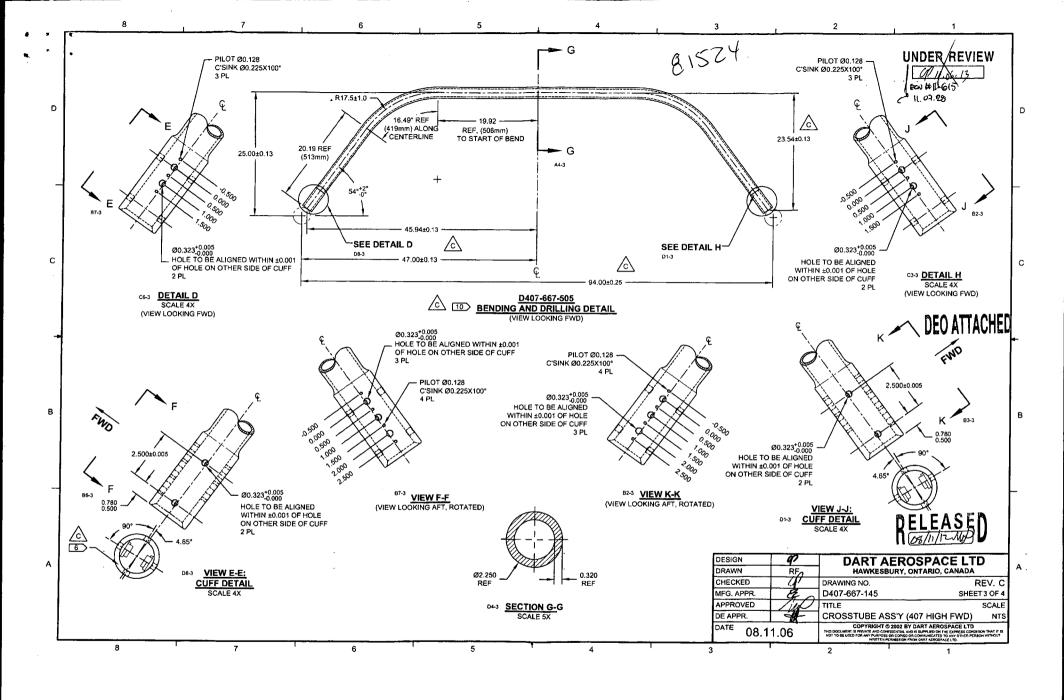
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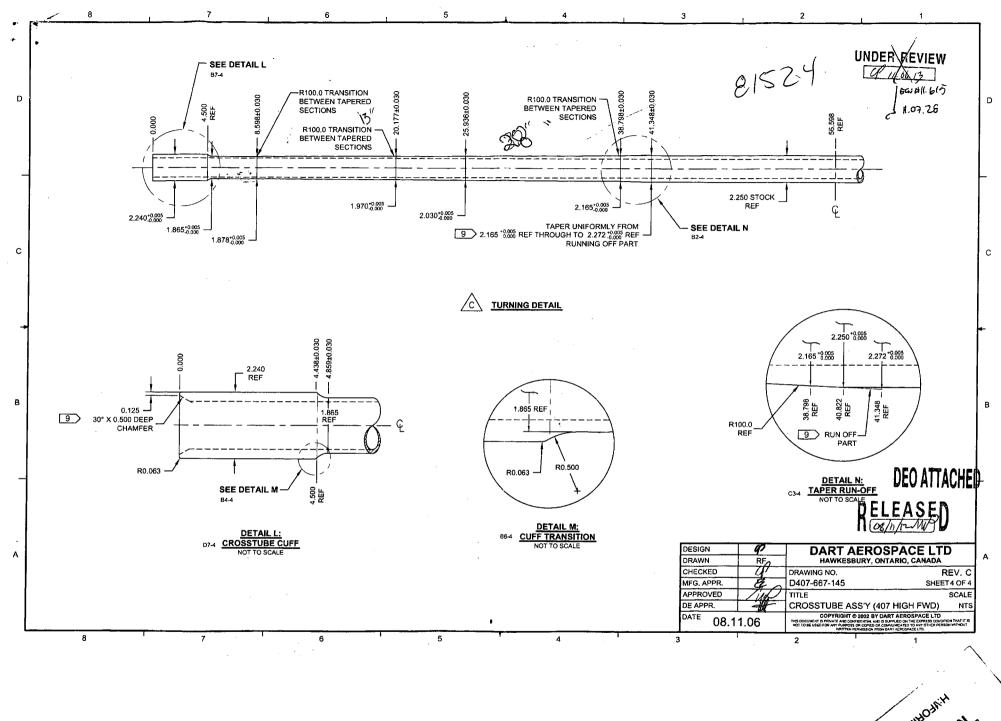
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DRAWING N	* '	TITLE		REV. C	DART AEROSPACE LT		SHEET NO.	SCALE
D407-667-	145	CROSSTUBE	- ASS'Y (40	7 HIGH FWD)	ENGINEERING ORDER	D407-667-145-C-1	SHEET 1 OF, 1	NTS
DRAWN	97		CHECKED	135	MFG. APPR.	APPROVED (M)	DE APPR.	
DATE	11.07.	15	DATE //	107.22	DATE 11:07.22	DATE 11/07/22	DATE 11.07.2	1

**PURPOSE:** 

REPLACE MAGNOBOND WITH PROSEAL.

81524

### CHANGE:

IS:

item	Qty -145	Part Number	Description
9	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8802 CLASS B-2

### WAS:

9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023
			ADHESIVE (TEXTRON/BELL SPEC. 299-947-100,
			TYPE II, CLASS 2 ADHESIVE)

NOTE 12 & 15, SHEET 1 IS AMENDED AS FOLLOWS:

#### IS:

- 12) TO INSTALL D2891-1 SUPPORT: ABRADE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

### WAS:

- 12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.



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W/O:			V	ORK ORDER CH	ANGES					
DATE	STEP	PROC	CEDURE CH	IANGE	,	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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NCR:		W	ORK OR	DER NON-CONFO	RMANC	E (NCR)	)		•	
DATE	STEP	Description of NC		Corrective Action	Section B		Verific	ation	Approval	Approval
DAIL	SIEF	Section A	Initial Chief Eng	Action Descrip Chief Eng	tion	Sign & Date	Section	Section C	Chief Eng	QC Inspector
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